

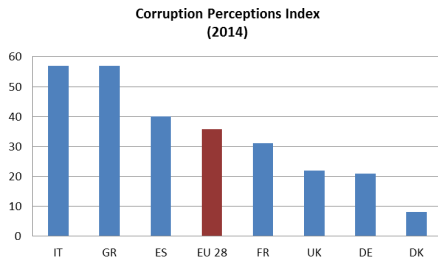
# Exposure to media and corruption perceptions

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# Introduction and motivation<sup>1</sup>

- Cross-national corruption perception measures are widely used for comparisons and assessments.



- However, several critics argue that perceptions from citizens or stake-holders can be biased by external factors, such as individual characteristics or local environment.
- **How well do corruption perceptions reflect actual levels of public sector corruption?**

<sup>1</sup>The views expressed in this work are those of the authors and do not necessarily reflect those of the institution they belong to. The usual disclaimers apply.

# Contributions

We focus on one potential channel which might bias individuals' perceptions about corruption, i.e. **media exposure**.

- We estimate the causal effect of the media persuasion on individuals' perceptions about corruption by exploiting an original dataset that we collected in the year 2014.
- We show individual determinants of corruption perceptions at the micro level.
- We show that the bias in individual perceptions about corruption might also differ within a given country, and provide a *clean* measure of corruption perceptions.

## Related literature

### Measuring corruption:

- Cross-national measures based on perceptions exploited to perform analysis on the economic causes and consequences of corruption (Mauro 1995; LaPorta et al. 1999; Fisman&Gatti 2002; Fredriksson&Svensson 2003).
- Micro-founded studies about the links between corruption perceptions and real extent of corruption (Fisman&Miguel 2007; Olken 2009; Olken&Barron 2009).

### Media persuasion:

- Several recent papers have shown that media persuasion influences voting (Della Vigna&Kaplan 2007; Barone et al. 2015), violent behaviors (Dahl&Della Vigna 2009), crime perceptions (Mastrococco&Minale 2015), gambling (DePaola&Scoppa 2014), family decisions (Chong&LaFerrara 2009; Bassi&Rasul 2015).

# Data

We combine two original data sources:

- the *Italian Survey of Households, Income and Wealth (SHIW)*, in which we collect **measures of corruption perceptions** from about 1,800 head of households:
  - these include subjective probabilities about (petty) corruption events (Direct and Indirect Corruption Perceptions, *DC* and *IC*) and about the success of enforcement measures to contrast corruption (Enforcement Perceptions in Investigation activities, *EI*, and in the Justice System, *EJ*)
- the *Corruption News Dataset*, in which we collect daily information on all **news related to corruption** appeared on the front page of 30 on-line newspapers between January and April 2014 (i.e. while the SHIW interviews were independently conducted by an external firm). The sample of newspapers is representative of both national and local newspapers

# Data: SHIW Interview Questions

## Corruption Perceptions

'Imagine that a citizen refers to a Public Office (PO) for some service. Without reference to your personal experience, attach to each event the probability (btw 0 and 100) of how likely is the event to occur. Low (high) values indicate low (high) probability of realization.'

- the PO hints that he would accept a sum of money, a favor or a gift in exchange for providing the service (**direct corruption, most serious case - DC1**);
- the PO hints that he would accept a sum of money, a favor or a gift in exchange for expediting the service provision (**direct corruption, less serious case - DC2**);
- the PO suggests turning to a specific intermediary to obtain the provision of the service or expedite it (**indirect corruption, most serious case - IC1**);
- the citizen has to ask for the intervention of a friend or acquaintance who works in the Public Administration in order to expedite the service provision (**indirect corruption, less serious case - IC2**).

# Data: SHIW Interview Questions

## Enforcement Perceptions

'Attach to each event the probability (btw 0 and 100) of how likely is the event likely is to happen. Low values indicate low probability of realization, high values high probability of realization:'

- a corrupt PO is discovered (**Enforcement: investigations - EI**);
- a corrupt PO who has been discovered, eventually serves a term of imprisonment (**Enforcement: justice - EJ**).

# Descriptive statistics

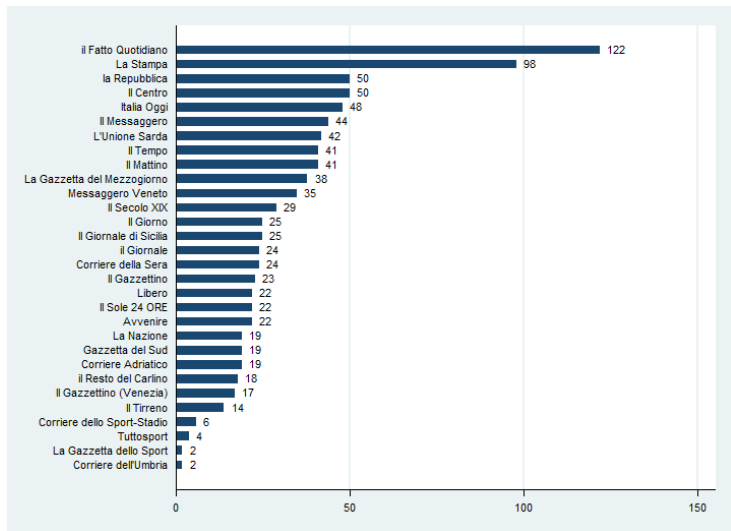
## Perceptions

	Direct corruption most serious (DC1)	Direct corruption less serious (DC2)	Indirect corruption most serious (IC1)	Indirect corruption less serious (IC2)	Enforcement Investigations (EI)	Enforcement Justice (EJ)
<b>Occupation status</b>						
Employed (N=532)	33.77 (28.22)	34.42 (28.7)	38.7 (29.1)	47.47 (31.1)	37.1 (27.54)	16.31 (21.65)
Self employed (N=136)	37.07 (27.66)	37.27 (28.19)	43.74 (29.59)	50.05 (29.22)	36.99 (26.83)	12.28 (18.77)
Not occupied (N=1137)	37.65 (28.97)	38.02 (29.19)	41.67 (28.99)	49.63 (31.11)	35.18 (25.59)	15.99 (20.75)
<b>Education level</b>						
Higher education (N=841)	33.9 (27.47)	34.14 (27.86)	39.21 (28.48)	48.91 (30.67)	36.39 (26.62)	15.35 (20.69)
Lower education (N=964)	38.7 (29.55)	39.31 (29.77)	42.47 (29.55)	49.13 (31.25)	35.44 (25.98)	16.2 (21.07)
<b>Contacts with Public Offices</b>						
Lower than the median (N=965)	34.13 (27.5)	34.98 (28.13)	39.06 (28.23)	46.54 (30.35)	35.98 (25.95)	14.83 (20.13)
Higher than the median (N=840)	39.14 (29.8)	39.11 (29.84)	43.12 (29.92)	51.88 (31.45)	35.77 (26.66)	16.91 (21.69)
<b>Geographical area</b>						
North (N=702)	32.03 (27.05)	32.61 (27.85)	35.71 (28.03)	41.96 (29.74)	36.77 (26.2)	15.43 (21.34)
Centre (N=396)	34.18 (27.27)	35.35 (27.55)	39.24 (28.2)	47.52 (28.94)	31.96 (26.28)	12.91 (19.28)
South (N=707)	42.14 (30.1)	42.03 (30.15)	47.11 (29.51)	56.88 (31.49)	37.2 (26.17)	17.79 (21.13)
<b>Total</b>						
(N=1805)	36.46 (28.69)	36.9 (29)	40.95 (29.09)	49.03 (30.97)	35.88 (26.28)	15.8 (20.89)



# Descriptive statistics

Total number of *corruption news* per newspaper



# Identification strategy

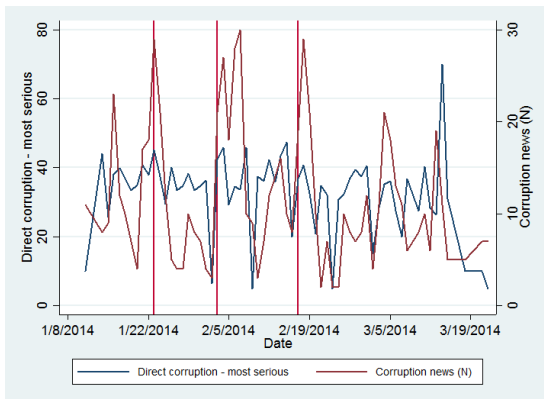
$$Corruption_{ipd} = \alpha_0 + \beta News_{dp} + \alpha_1 X_i + \phi_t + \phi_p + \epsilon_{idp} \quad (1)$$

where:

- $Corruption_{ipd}$  are subjective probabilities ( $\in [0 - 100]$ ) of the realization of corruption events and enforcement measures to contrast corruption, given by individual  $i$  in province  $p$  in day  $d$ ;
- $News_{dp}$  is the number of news related to corruption events appeared on the newspapers in day  $d$ , obtained as the sum of the news reported in the national newspapers and the news reported in the local newspapers sold in the province where individual  $i$  resides.
- $X_i$  is a vector of individual characteristics (gender, age, education, working status, use of public offices, public employee);
- $\phi_d$  and  $\phi_p$  are a set of time and territorial fixed effects.

# Identification strategy

- Identification of the causal effect of media persuasion on corruption perception (i.e.  $\beta$ ) is achieved thanks to the random scheduling of the day of the SHIW interviews ▶ Graphical test



# Baseline results

	(1) DC1	(2) DC2	(3) IC1	(4) IC2	(5) EI	(6) EJ
<b>Corruption news</b>	<b>0.230**</b>	0.175	0.184	0.195	-0.051	<b>-0.149**</b>
	(0.104)	(0.136)	(0.124)	(0.141)	(0.092)	(0.072)
Female	2.918**	2.955**	0.386	0.910	-0.223	1.024
	(1.450)	(1.439)	(1.227)	(1.394)	(1.118)	(1.066)
Age	-0.168***	-0.186***	-0.188***	-0.195***	0.032	-0.043
	(0.063)	(0.054)	(0.062)	(0.062)	(0.044)	(0.034)
High School	-3.746**	-3.798**	-2.790	-0.628	-0.122	-1.055
	(1.776)	(1.825)	(1.920)	(1.972)	(1.553)	(1.127)
College	-4.204*	-6.288**	-4.240*	0.342	-2.419	-1.023
	(2.342)	(2.535)	(2.468)	(2.909)	(2.559)	(1.669)
Employee	-4.208*	-3.404*	-3.277	-3.903*	0.745	-0.662
	(2.255)	(1.950)	(2.288)	(2.150)	(1.570)	(1.556)
Self employed	-3.176	-2.468	-0.671	-3.875*	3.596*	-2.733
	(2.282)	(2.111)	(2.371)	(2.132)	(2.122)	(1.863)
Civil Servant	-1.144	-2.329	-2.277	-2.943	3.728	2.339
	(2.396)	(2.637)	(3.079)	(3.074)	(2.487)	(1.866)
Go to public office at most 5 times py	-0.081	0.799	2.599	3.722	4.207*	3.940**
	(2.684)	(2.483)	(2.569)	(3.625)	(2.443)	(1.821)
Go to public office at most 10 times py	1.549	0.725	0.704	3.686	0.417	4.457**
	(3.303)	(3.147)	(2.945)	(3.911)	(3.394)	(2.015)
Go to public office more than 10 times py	3.927	3.889	4.965*	7.225*	4.710	6.599***
	(3.066)	(3.182)	(2.657)	(3.850)	(3.171)	(2.043)
Constant	39.312**	36.944***	23.205	51.780***	22.275**	9.623
	(15.481)	(11.338)	(17.711)	(13.423)	(9.400)	(10.390)
Observations	1805	1805	1805	1805	1805	1805
R-squared	0.1969	0.1753	0.1865	0.2331	0.1948	0.1991
Individual charact.	yes	yes	yes	yes	yes	yes
Fixed effects: province, dow	yes	yes	yes	yes	yes	yes

# Robustness checks

Placebo regression: random match of the dates

	(1)	(2)	(3)	(4)	(5)	(6)
	DC1	DC2	IC1	IC2	EI	EJ
Corruption news: placebo	0.118 (0.191)	0.185 (0.187)	0.272 (0.176)	0.245 (0.206)	0.062 (0.128)	-0.051 (0.132)
Constant	101.901*** (8.411)	98.152*** (9.768)	93.762*** (8.888)	94.079*** (12.306)	46.425*** (8.573)	15.968*** (5.845)
Observations	1805	1805	1805	1805	1805	1805
R-squared	0.1990	0.1776	0.1905	0.2347	0.1942	0.1941
Individual charact.	yes	yes	yes	yes	yes	yes
Fixed effects: province, dow	yes	yes	yes	yes	yes	yes

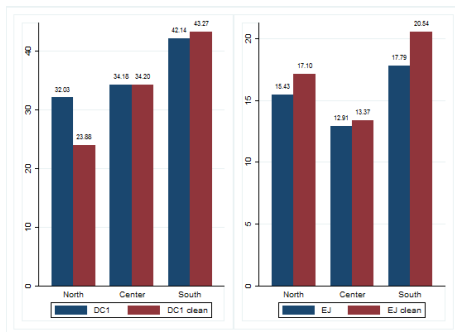
◀ Robustness: leads and lags

# Policy implications

## Cleaning perceptions: regional divides

- The estimates of the effects of media persuasion on corruption perceptions make it possible to clean individual perceptions from **media bias**

$$\overline{Corruption}_a^{clean} = \overline{Corruption}_a - \hat{\beta}_a \times \overline{News}_a \quad (2)$$



# Concluding remarks

## Main results:

- Increasing individual exposure to corruption news in the day of the interview by one sd (7.5 news):
  - increases the stated likelihood of being asked a bribe by a public official of 1.7 pp;
  - decreases the perceived level of effectiveness of justice enforcement by 1.1 pp.

## Policy implications and future steps:

- Our work highlights one potential pitfall of existing corruption measures based on individuals' perceptions.
- The future steps of our research will focus on disentangling the *learning* and *bias* mechanisms behind the overall effect of media persuasion on corruption perceptions.